

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of:

Appellant(s): Dave CARGILE et al.

Art Unit: 3754

Application. No.: 10/662,878

Examiner: Kaufman

Filed: September 16, 2003

Confirmation No.: 1149

For: CONTOUR FOR TUBE SEALS TO  
FACILITATE MOUNTING OF A PRODUCT  
EVACUATION DEVICE

\* \* \*

**REPLY BRIEF**

Mail Stop Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §1.193 Appellants herein respond to the Examiner's Answer dated April 11, 2007.

**The Rejection of Claims 1-22 Under 35 USC § 112**

At page 4, last paragraph, of the Examiner's Answer, the Examiner responds to Appellants' argument, indicating that "[t]he specification does not discuss how the seal is formed and the drawings are not specific enough to preclude other possibilities as previously stated." The Examiner further indicates that "appellant's contention that the seal can be made only by heat treatment or crimping has no basis of support in the disclosure." Finally, the Examiner "finds no basis that the seal is inherently formed

solely by the main body and, therefore; one of ordinary skill in the art could not reasonably conclude that the limitation has support in the original disclosure.”

First, Appellants’ specification does, in fact, discuss formation of the seal. During the manufacturing of tube (10), seal (300) is formed at the end of main body (100) to prevent material stored in tube (10) from exiting. See Appellants’ Specification, paragraph 23, lines 5-8. Note that the specification contains no indication of a seal being attached to the end of main body (100) subsequent to the manufacturing of tube (10).

Secondly, Appellants do not contend, as suggested by the Examiner, that the seal can be made only by heat treatment or crimping. Rather, heat treatment and crimping are merely suggested as exemplary methods that a person of skill in the relevant art would recognize as suitable for forming the seal entirely from the main body portion of the tube. See § (7) A., second paragraph, of Appellants’ Amended Appeal Brief. The Examiner’s Answer itself suggests that a person of ordinary skill in the art is familiar with various sealing types (“Substituting one type of seal for another is well known”).

Finally, Figures 3, 5, and 6, which show an enlarged view of a seal, demonstrate that no additional components beyond the main body are used to create the seal. Indeed, the drawings depict the seal and the main body with no breaks, seams, or change of material therebetween. One of ordinary skill in the art would recognize from those figures and the description that Applicants possessed *inter alia* the idea of forming the seal from a continuous piece of stock making up the main body. At the very least, such a person would recognize from Figures 3, 5, and 6 that Applicants possessed the idea of a seal formed solely by the main body as claimed.

**The Rejection of Claims 1-8 and 10-22 Under 35 USC § 102(b) and 103(a)**

At page 5 of the Examiner's Answer, the Examiner argues that "[a]s the structure is defined by how it is made, i.e. formed by the main body, it is a product-by-process limitation. Therefore, as the seal is structurally the same as the seal of Young or Bolz, both Young and Bolz meet the claimed limitation." The Examiner further argues that "[w]ith regard to the argument that Young and Bolz are silent as to the motivation, implicit motivation has been provided by the examiner as noted above and has not been addressed by the applicant. The mere fact that Young and Bolz show another type of seal does not mean that the references teach away or would be destroyed if modified. Substituting one type of seal for another is well known and the motivation provided is reasonable and clear." Finally, the Examiner argues that "the U-shaped trough and the thickened portion of the seal have been discussed above and are shown by both Young and Bolz. Appellant has not explained how the structures discussed above do not meet the claimed limitations."

Appellants respectfully disagree with Examiner's position that the seal being formed solely by the main body is a product-by-process limitation. As presented in Appellants' Amended Appeal Brief, a product-by-process claim "is a product claim that defines the claimed product in terms of the process by which it is made." MPEP § 2173.05(p). No process is recited in claim 1; the seal is merely described, in part, as being formed by the main body. This is a structural limitation, not a process limitation. The seal of Appellants' claimed invention is structurally different than that of Young or Bolz. Unlike Appellants' seal, the seals in Young and Bolz structurally comprise a discrete member — i.e., an additional component — that is attached to the end portion of the tube main body and imparts a clamping force on the end portion of the tube main

body, thereby sealing the tube. This configuration includes a structural interface between the tube main body and the discrete structural member that is necessary to form the seal. Such a discrete member and its corresponding structural interface do not meet the terms of Appellants' claimed invention.

With regard to the Examiner's assertion that implicit motivation for modifying the seals in Young or Bolz to be formed solely by the main body has been provided by the Examiner and has not been addressed by the Applicant, Appellants respectfully disagree and refer the Examiner to §§ (7) B. 5. and (7) C. 5. of Appellants' Amended Appeal Brief. As discussed in these sections, both Young and Bolz teach away from modifying the seal to be formed solely by the main body. In the case of Young, placing an additional discrete component over the tube end serves to achieve suitable engagement between the winding key and the tube end. In the case of Bolz, a separate metal strip is placed over the tube end to form a seal. Ear extensions on the metal strip have aligning apertures designed to be engaged by an arched finger on a key. Thus the separate metal strip is necessary for the invention of Bolz to work. Given that both Young and Bolz teach away from Appellants' claimed invention, neither reference provides motivation, implicit or otherwise, for modifying the seal to be formed solely from the main body. The Examiner has not identified a suitable reason why one of ordinary skill in the art would have found such modifications obvious as required by *KSR v. Teleflex*, 550 U.S. \_\_\_, 127 S.Ct. 1727 (2007).

Finally, Appellants disagree with the Examiner's assertion that the U-shaped trough and the thickened portion of the seal are shown by both Young and Bolz. "Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim." MPEP, § 608.01(n). Claims 4 and

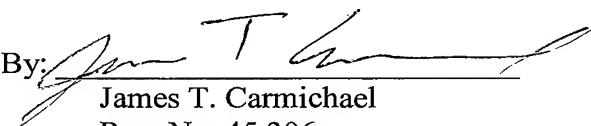
5 depend from independent Claim 1 and, accordingly, include all the limitations of Claim 1. Specifically, Claims 4 and 5 include the limitation that the seal is formed solely by the main body. Similarly, Claims 12 and 13 depend from independent Claim 10 and, accordingly, include all the limitations of Claim 10. Accordingly, Claims 12 and 13 include the limitation that the seal is formed solely by the main body. As the applied references, Young and Bolz, fail to disclose or suggest this feature, they do not meet the claimed limitations of independent Claims 1 and 10 and their respective dependents. Further, Young and Bolz do not show the U-shaped trough and the thickened portion of the seal as recited in the dependent claims.

For the reasons presented herein and in the Brief on Appeal, therefore, it is respectfully requested that the final rejection of record be reversed and the application remanded to the Examiner for immediate allowance.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (T4289-13050US01) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

Date: June 11, 2007

By:   
James T. Carmichael  
Reg. No. 45,306

Miles & Stockbridge, P.C.  
1751 Pinnacle Drive  
Suite 500  
McLean, Virginia 22102-3833  
(703) 903-9000

Michael A. Minter  
Reg. No. 58,787